

CLAIMS

1. An optical device comprising:
5 a container enclosing an insulating liquid (A) and a liquid responsive to an electric field (B), the insulating liquid (A) and the liquid responsive to an electric field (B) being immiscible and being in contact with each other via an interface (14), at least one of the liquids (A; B) being at least partially placed in a light path through the container;
10 means for controlling an orientation of the interface (14); and
means (100, 120, 140) for preventing the interface from an exposure to an external electric field.
2. An optical device as claimed in claim 1, wherein the means for
15 controlling an orientation of the interface comprise an electrode arrangement (2; 12) for controlling the shape of the interface (14) by means of a voltage.
3. An optical device as claimed in claim 1 or 2, wherein the surface is a
20 part of a transparent end portion (4) of the container; the means for preventing the interface from an exposure to an external electric field comprise a conductive layer (100), the conductive layer (100) forming a part of the transparent end portion (4).
4. An optical device as claimed in claim 3, wherein the means for
25 controlling the orientation of the interface comprise an electrode (12) in contact with the liquid responsive to an electric field (B), the conductive layer (100) being conductively coupled to said electrode (12).
5. An optical device as claimed in claim 1 or 2, wherein the means for
30 preventing the interface from an exposure to an external electric field comprise a Faraday cage (120, 140) surrounding the container.

6. An optical device as claimed in claim 5, wherein the Faraday cage comprises a conductive coating (140) at least partially covering a further container (120).
- 5 7. An optical device as claimed in claim 6, wherein the further container (120) is at least partially transparent.
8. An electronic device (1) including an optical device comprising:
a container enclosing an insulating liquid (A) and a liquid responsive to
10 an electric field (B), the insulating liquid (A) and the liquid responsive to an electric field (B) being immiscible and being in contact with each other via an interface (14), at least one of the liquids (A; B) being at least partially placed in a light path through the container;
means (2; 12) for controlling an orientation of the interface (14); and
15 means (60, 100) for preventing the interface from an exposure to an external electric field;
driver circuitry (20) coupled to the means (2; 12) for controlling an orientation of the interface (14); and
a power supply (30) for powering the driver circuitry (20).
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9. An electronic device (1) as claimed in claim 7, wherein the means (100) for preventing the interface from an exposure to an external electric field are coupled to a terminal of the power supply (30).
- 25 10. An electronic device (1) as claimed in claim 8, wherein said terminal is the ground.
11. An electronic device (1) as claimed in claim 8 or 9, wherein the means for preventing the interface from an exposure to an external electric field form
30 a part of an arrangement (60) for shielding an electronic circuit (50) of the electronic device (1) from external radiation.